UNITED STATES DEPARTMENT OF AGRICULTURE

FOREST SERVICE

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ANNUAL REPORT TO COOPERATORS

FROM THE

SIERRA NATIONAL FOREST

FOR 1950

M—5123

U. S. GOVERNMENT PRINTING OFFICE

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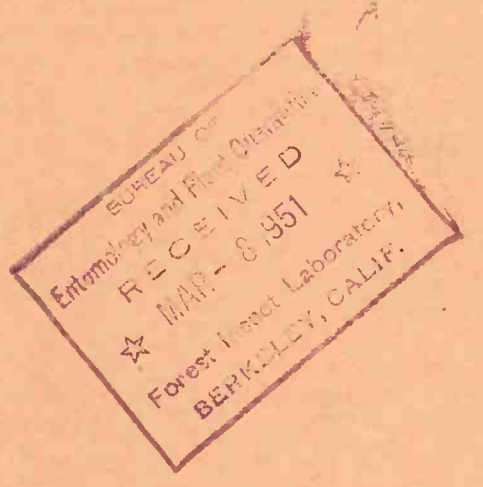
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SIERRA NATIONAL FOREST

REPORT TO COOPERATORS

- 1950 -

We again submit for your information and comment a report on the Sierra National Forest.

In an attempt to save time - yours as well as ours - we have limited our discussion to the years highlights. You may wish added information on certain subjects. If such is the case, a short note or telephone call will start the information on its way to you.

Two items - Water and Timber - were dealt with in some detail. During the period of all out production, with which we are now confronted, these two products of the Forest assume increased importance in our local economy and in our National welfare. It is proper that you be fully acquainted with the behind-the-scene factors leading up to the sustained flow of lumber products and water uses of your National Forest property.

One further point- the report makes no mention of the truly significant contribution made to management and protection of the Forest by Individuals - Companies - Newspapers - Radios and Organizations. It is impracticable to more than call attention to this important factor in successful administration of this public property.

Sincerely yours,

B. Byron Beattie

BYRON BEATTIE
Forest Supervisor

I. WATERSHED MANAGEMENT:

Maintenance of a healthy watershed from which will flow a well distributed useable supply is the primary management objective of the Sierra National Forest. Coincident with, but subordinate to, this primary objective is the harvesting of renewable crops of timber, forage and wildlife on a sustained basis, and provision for use of the forest area for recreational and general benefit of the people.

GENERAL CONDITIONS:

The November 1950 flood period following the 1947-1948 drought has clearly emphasized the role of water in the economy of the San Joaquin Valley. These same conditions conclusively demonstrated the significance of the mountain watershed and the vital need for its proper protection and management.

During the drought year of 1947-1948, Big Creek drainage from the 3000 acre Bretz Fire was a silt and debris laden torrent. Its next door neighbor, Sycamore Creek (in similar topographic and soil type) was characterized by clear water and more even flow. The extremely heavy run-off of last November showed the flood control and erosion prevention value of undamaged watersheds.

WATER UTILIZATION:

The first demands on available water is made by the vegetation - trees - grass - brush - growing on the watershed. This might be termed the "maintenance" requirement of the watershed, for it is this vegetative mantle which keeps the watershed perpetually healthy.

The second use is by livestock, recreationists and industry situated within the Forest. In terms of volume the water requirements in this category are extremely low. Closely related to this use is the transitory value for fish life and scenery.

Hydro-electric power production (12 separate plants within the Forest boundary) is a valuable and major use of water, although it too, is a transitory or non-consumptive use.

Downstream use - irrigation, industrial and domestic - is geared to consume substantially the entire surface and underground yield of the watershed.

II. TIMBER MANAGEMENT:

Ranking second to water in overall economic importance, timber provides the greatest cash income of any crops or uses of the Forest. A brief description of the major steps in managing this resource follows:

A. Management Plans:

On the basis of timber inventories and analysis a management plan is developed for each logical timber management unit (Working Circle). This management plan prescribes the rate and type of cutting, disease and insect control policies and cultural treatment to be applied to the Working Circle. This is then correlated with transportation systems - sawmill facilities - and general economic requirements, to arrive at a final operating plan which will utilize the crop on a sustained yield basis.

At approximate 10 year intervals these plans are revised to meet changing conditions which may have occurred. To facilitate study of the timber stand, permanent growth and mortality plots are established throughout the timbered area.

B. Harvesting the Timber Crop:

Timber is sold to privately operated sawmills on the basis of competitive bid. Each stand of timber is appraised by Forest Officers to determine the minimum acceptable price. The price varies with the quality of the stand, the cost of logging and milling and the general economic condition of the lumber market.

Uncertainty as to market conditions during the early part of 1950 resulted in a curtailed though active volume of business. Total sales for the calendar year reached 33½ million board feet with an income of 550 thousand dollars. Average selling price per thousand feet was $16.50. This compares to a ten year average of 26½ million feet cut per year, with an annual income of 170 thousand dollars and an average price per thousand of $5.10.

It is anticipated that timber sale business will increase during the next few years until the sustained cut of the forest of 75 MM feet is reached. At that point production will become stabilized except for variations caused by economic conditions.

C. Cultural Treatment:

452,000 trees were planted during the year on burned or denuded areas. This is by far the largest reforestation job yet accomplished on the forest. Many thousand acres of deforested lands are in need of planting.

Improvement of the quality of the timber stand was accomplished on 1750 acres during the year. Cultural treatment was limited to two types. Removal of "Weed" trees such as oak was completed on 1000 acres. This work permits an increased growth rate on the competing pines. The second operation - pruning of pines to improve the quality and sales value was completed on 750 acres.

D. Insect Control:

As anticipated, insect damage reached near epedemic pre portions last year. 1400 trees were felled, treated with an estimated reduction in insect damage of 70%. Approximately 30% of the insect killed trees were salvaged by logging operators. Insect control work is continuing during the spring of 1951 and, it is hoped, will successfully end the serious losses of this particular infestation. It is not practical to eliminate all insect loss within the forest.

E. Disease Control: (White Pine Blister Rust)

Disease control continued at planned rate. Two camps of 120 men plus eight small contractors removed gooseberries from 7200 acres last year. Both chemical and hand eradication were employed. This work is in the nature of disease prevention.

Actual rust infections have been found as far south as the Eldorado National Forest. Its observed southward spread during the year was 7 miles. Control operations on the forest are geared for completion prior to actual occurrence of this disease. Should the rate of spread increase it will be necessary to step up the rate of gooseberry eradication. By removing the gooseberry plant the "rust" is prevented from reaching and killing the valuable Sugar pine tree.

III. RANGE MANAGEMENT:

Utilization of range forage by domestic stock is gradually decreasing through voluntary termination of permits by cattlemen. In 1949 there were 116 permittees with 9800 head of cattle and 4750 head of sheep, in 1950 - 80 permittees grazed 8100 head of cattle and 3000 head of sheep.

Among the basic reasons for this decline in range use are: (1) decreased forage production, due to past over stocking, erosion in high meadows and increase in timber stocking, (2) economics of present day livestock production, and (3) a distinct change in the type of beef animal being raised.

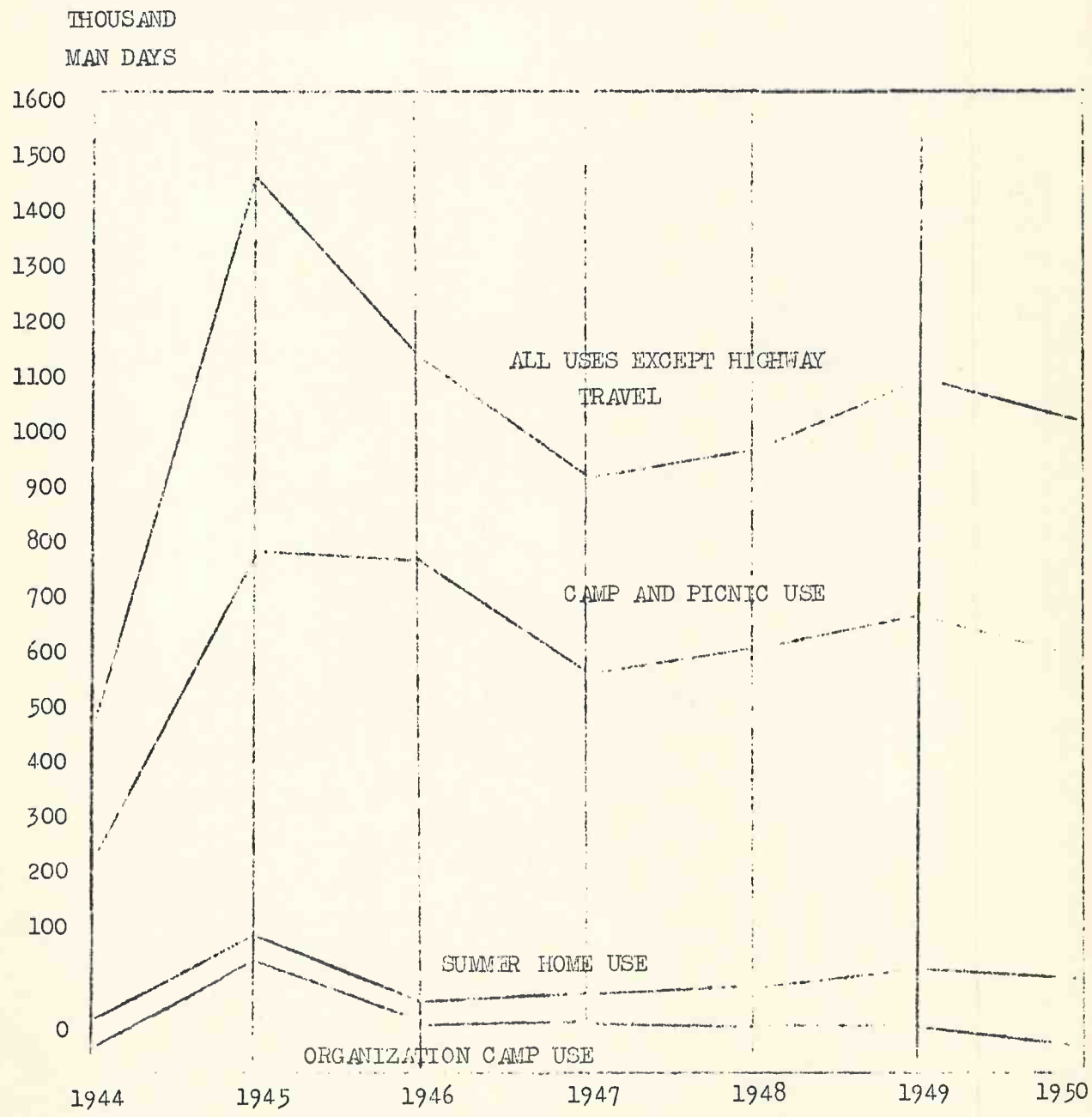
This decreased use by cattle and sheep is permitting some recovery of high mountain meadows - so important to water production - and increasing the amount of forage available to tourist horses.

IV. RECREATION:

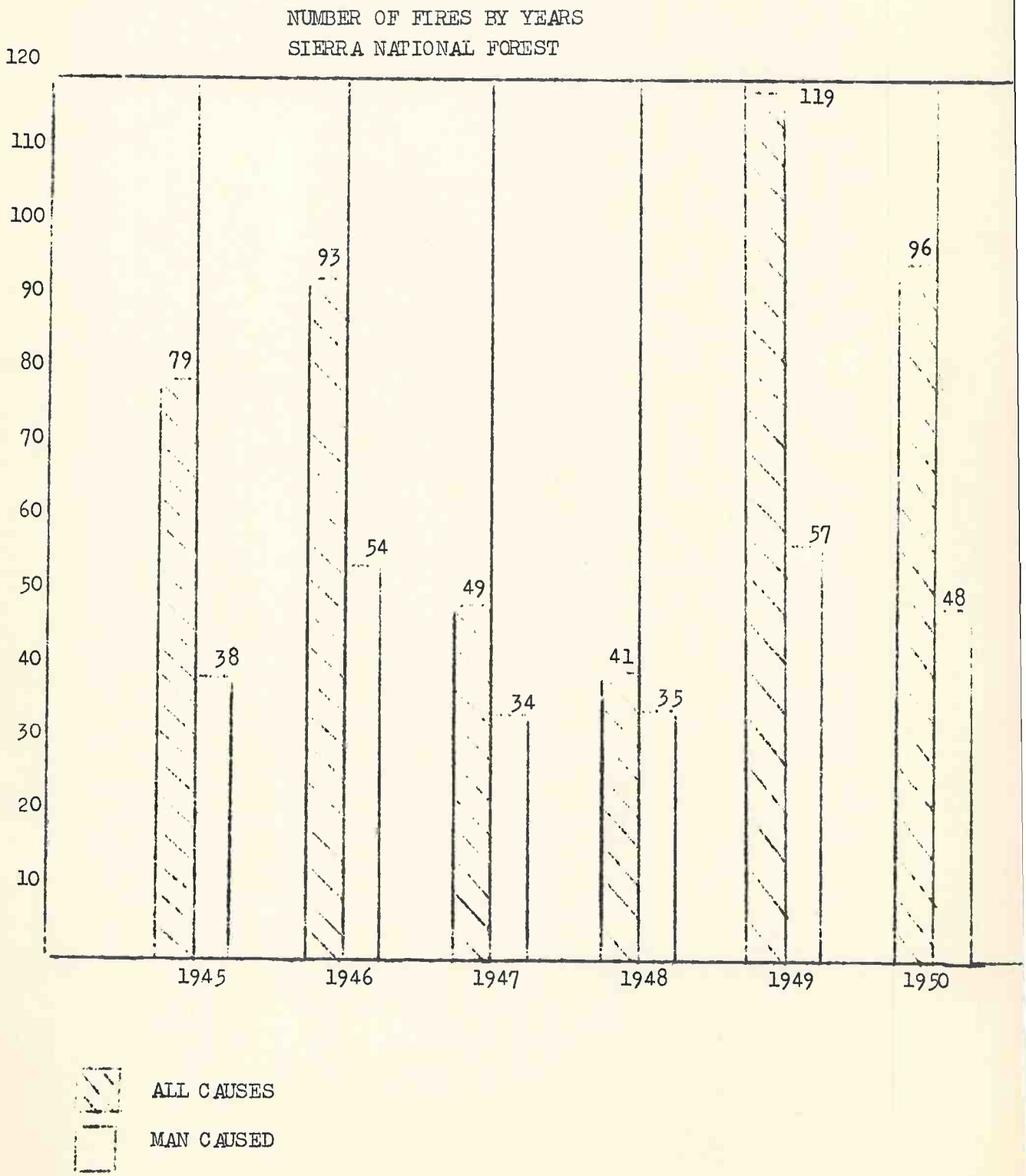
Recreational use declined slightly during the past year as indicated in the chart. The primary reason for the decline was the generally cool weather that prevailed during much of the vacation period.

Due to lack of appropriations for recreational development there has been no expansion of recreational facilities since the 1930's. Maintenance standards of recreational areas continue to decline and have reached the point where only basic requirements of sanitation, fire prevention and comparable items can be financed.

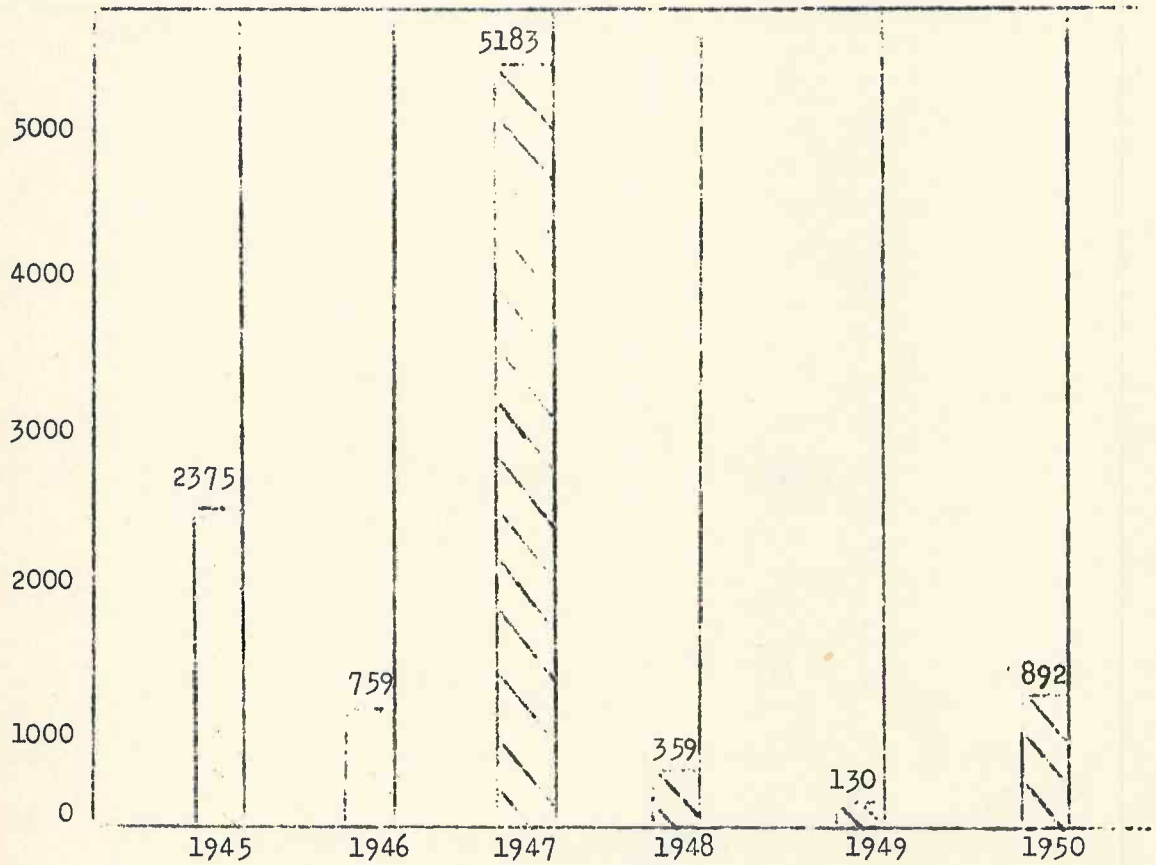
RECREATIONAL USE



V. FIRE CONTROL:



AREA BURNED BY YEARS (ACRES)



Despite what was considered to be the worst fire season since 1924, the total burned area on the forest was slightly less than 1000 acres. Man-caused fires accounted for 850 acres burned, compared to 42 acres by lightning. The causes of fires were equally divided, 49 man-caused as against 48 by lightning.

Man-caused fires are still the major problem, as they generally occur in the lower, drier elevations, while lightning caused fires are in the higher country, and the storms causing them usually bring some moisture.

Much of the credit for this favorable fire record can be given to the newspapers - radio stations - organizations and companies that carried fire prevention messages to the users of the National Forest.

VI. MAJOR STRUCTURAL DEVELOPMENT DURING THE YEAR:

From Public Funds:

1. Clearing 5½ miles of Huntington Lake Highway.
2. Construction of 5 miles of Chiquito Basin Timber Access Road.
3. Final survey - 4 miles Patterson Mountain Timber Access Road.
4. Reconstruction of 14 miles of Piute Trail.
5. Construction of a new lookout tower on Signal Peak.

Private Construction on National Forest Lands:

1. Southern California Edison Company dam - tunnel - powerhouse - and transmission line is near completion.

2. Lumber companies constructed 3 miles of timber access roads, improved 10 miles, and constructed 25 miles of secondary log haul roads.

VII. ORGANIZATION:

Only one significant organizational change occurred last year. This was the establishment of a specialized 20 man suppression crew for use on major fires throughout this portion of the State. The crew performed on critical sectors of fires on the Cleveland - Mendocino - Shasta and Modoc Forests.

Employment reached a peak of 273 people during the summer season and dropped to a low of 55 persons during the winter months.

In service transfers during the year were C. E. Risbrudt, appointed as Timber Management Staff Officer on the Supervisor's Staff.

J. E. Taylor appointed District Ranger on the Pine Ridge District.

Frank E. Tucker, Timber Management Assistant on the North Fork District was recalled to military service and replaced by Donald Heron.

Reid Seely was appointed to the Fire Control Assistant position on the Kings River District.

Paul Googins was appointed to the previously vacant Assistant Engineers position on the Supervisor's Staff.

Two new professional Foresters - Garth Jeffers and Jim Barton were appointed to Timber Inventory work.

FINANCIAL STATEMENT
SIERRA NATIONAL FOREST
FOR FISCAL YEAR ENDING JUNE 30, 1950

ITEMS	EXPENDITURES		INCOME	
	Operating	Investment	Cash Receipts	Non-Reimbursable Benefits*
General Management Expense	45,300			
Timber Management	35,600	201,200	275,400	
Range & Wildlife Management	16,000	4,800	18,200	41,000
Watershed Protection & Management (Includes Fire Control	135,400		85,800**	1,500,000
Recreation Management	10,300		24,500	296,000
Facilitating Improvements				
Misc. Improvements	25,200	2,500		
Roads & Bridges	48,400	185,900		
Horse Trails & Bridges	13,500	4,100		
TOTALS	329,700	398,500	403,900	1,837,000

* Non-reimbursable benefits are services for products of the Forest for which no income is received - Water Yield, Recreational Use, Forage for Wildlife and Miscellaneous free use privileges.

** $72,000 of this amount is collected by Federal Power Commission.

25% of National Forest receipts are returned to the County as payment in lieu of taxes. Payments to Counties for the fiscal year were:

	ACREAGE	PER CENT	RETURNS TO COUNTIES
Fresno County	854,309	63.59	$52,764.97
Madera County	399,974	29.78	24,703.24
Mariposa County	89,024	6.63	5,498.18
TOTALS	1,343,307	100.00	$82,966.39